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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/856,814	08/13/2001	Klaus Wilbuer	SWR-0055	4734

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EXAMINER

UHLIR, NIKOLAS J

ART UNIT	PAPER NUMBER
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1773

9

DATE MAILED: 06/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/856,814

Applicant(s)

WILBUER ET AL.

Examiner

Nikolas J. Uhlir

Art Unit

1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) 6-44 is/are withdrawn from consideration.
- 5) ☐ Claim(s) none is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of claims 1-5 in Paper No. 8 is acknowledged. The traversal is on the ground(s) that the special technical feature of the invention is a polymer material containing a property changing component, and makes a contribution over the prior art, in light of the fact that Yamazaki does not disclose a polymer material comprising a property changing component, like a lubricant or magnetic particles for example. This is not found persuasive because Yamazaki clearly discloses a magnetic layer that comprises a binder resin, magnetic powder, and a lubricant. Specifically, Yamazaki states "A preferred magnetic coating composition used for the formation of the magnetic layer mainly comprises magnetic powder, a binder, and a solvent. The magnetic coating composition used for forming the coating composition preferably contains the fatty acid esters (A) and (B) and the fatty acid." (column 4, lines 4-22). Yamazaki further states, "The magnetic layer 4 contains, **as a lubricant**, (A) a fatty acid ester derived from a straight chained or branched aliphatic alcohol....and (B) a fatty acid ester derived from a straight chained or branched aliphatic alcohol..." (column 2, lines 58-65). As binders for the magnetic layer, Yamazaki states, "the binder which can be used in the magnetic coating composition forming the magnetic layer includes thermoplastic resins, thermosetting resins, and reactive resins, either individually or a mixture thereof" (column 5, lines 19-53). Thus, the special technical feature of the instant invention, a polymer containing a property changing component (such as a lubricant or magnetic powder) is clearly taught by Yamazaki, and thus the examiner

Art Unit: 1773

maintains that the special technical feature does not make a contribution over the prior art.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 6-44 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 8.

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The specification fails to describe the limitations of claim 5, specifically the limitations of a "dividing line extending between each two individual layer like materials runs crosswise to the surface contour of the basic material."

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In the instant case, claim 5 requires a "dividing line extending

Art Unit: 1773

between each two individual layer like materials runs crosswise to the surface contour of the basic material." It is unclear to the examiner exactly what the applicant is claiming. Does the dividing line between layers mean the interface between each individual layer in the multilayer? Clarification is required.

7. Further Claim 5 recites the limitation "The basic material" in last line of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-5 rejected under 35 U.S.C. 102(b) as being anticipated by Yamazaki et al. (US5776596).

10. Claim 1 requires a coating made of a film formed on the basis of at least one polymer material that includes at least one property changing component embedded in a matrix of the polymer material, the film comprising several layer-like areas, at least one of which contains the property changing component.

11. the examiner acknowledges that while it is the duty of the examiner to interpret the claims in light of the specification, it is also the duty of the examiner to give the claims their broadest reasonable interpretation. Bearing this in mind, the examiner has interpreted the limitation requiring a "property changing component" in claim 1 to require a polymer film to contain a material that changes any property of that polymer film, i.e.

Art Unit: 1773

hardness, lubricity, magnetization characteristics, crosslink density, etc... Further, the examiner interprets "several layer-like areas" to mean that at least 2 individual layers, or 1 individual layer with at least 2 layer-like regions (i.e. a lower region of low crosslink density and an upper region of high crosslink density) is required.

12. Bearing the above interpretations in mind, Yamazaki et al. (hereafter Yamazaki) teaches a magnetic recording medium comprising a non-magnetic substrate 2, an intermediate layer 3 formed on the surface of the non-magnetic substrate, and a magnetic layer 4 formed on the surface of the intermediate layer (figure 1 and column 2, lines 20-25). In a specific embodiment, a 6 μ m thick polyethylene terephthalate film is utilized as the substrate 2 (column 11, line 45-column 12, line 13). A composition containing 100 parts α iron oxide particles, 7 parts alumina, 2 parts by weight carbon black, 11 parts of a vinyl chloride resin MR110, 4 parts of a urethane resin UR8300, 4 parts of a polyisocyanate compound Coronate L, and 300 parts solvent was utilized to form the intermediate layer. A composition containing 100 parts acicular ferromagnetic metal powder, 12 parts alumina, 1 part carbon black, 11 parts of a vinyl chloride resin MR100, 7 parts of a urethane resin UR8300, 4 parts of an isocyanate compound Coronate L, and 300 parts solvent was utilized to form the magnetic layer. Both the magnetic layer and the intermediate layer compositions were mixed with 2 parts each of a fatty acid ester and fatty acid lubricants prior to coating the mixtures onto the polyethylene terephthalate film (column 11, table and lines 45+).

13. In the instant case, the interprets the polyethylene terephthalate film, the intermediate layer, and the magnetic layer of Yamazaki to be equivalent to applicants

Art Unit: 1773

claimed "several layer-like areas." Further, the examiner interprets the lubricant fatty acid and fatty acid esters of Yamazaki to be equivalent to applicants claimed "property changing component embedded in the matrix of the polymer material" (although other materials, such as the α iron in the intermediate layer and the ferromagnetic iron in the magnetic layer meet this limitation as well). Thus, Yamazaki meets all of the applicants claim 1 limitations.

14. Claim 2 requires the individual layer like areas to be different in terms of the embedded property changing components and/or the polymer material used.

15. This limitation is met as set forth above for claim 1, as it is clear that the at least 2 of the individual layers of Yamazaki are manufacture from different materials.

Specifically, the polyethylene terephthalate substrate film layer is clearly different that the vinyl chloride/urethane composite film utilized to form the magnetic and intermediate layers.

16. Claim 3 requires a concentration of the property changing components embedded in layer like areas to vary in a thickness direction of layer thickness.

17. The examiner interprets the limitations of claim 3 to be mean that in a multiple layer system, the concentration in 1 layer must be different then the concentration in another layer, or in a single layer system, the concentration of the property changing component must change over the thickness of the film.

18. These limitations are met as set forth above for claim 1, as the PET substrate layer of Yamazaki contains no lubricant, and the intermediate contains 2 parts of the

Art Unit: 1773

lubricant. Thus, the composition of the lubricant changes in a thickness direction of the film.

19. The limitations of claim 4 require the individual layer-like areas to be arranged one over the other following surface contours of a basic material. This limitation is met as set forth above for claim 1 and as illustrated by figure 1 of Yamazaki. The examiner interprets the backing layer 5 to be equivalent to applicant's claimed "basic material," and substrate, intermediate, and magnetic layers 2-4 respectively as applicants claimed "layer like areas." Clearly, the substrate layer 2, intermediate layer 3, and magnetic layer 4 follow the contours of the backing layer.

20. The limitations of claim 5 require individual layer like areas arranged next to one another to follow the contours of a basic material, whereby a dividing line extending between each two layer like areas runs crosswise to the surface contour of the basic material.

21. The examiner interprets the limitations of claim 4 to require each of the layers in a multiple layer system or a single layer having multiple regions to follow the contours of a substrate, such that the interface between layers is parallel with the contours of the substrate.

22. These limitations are met as set forth above for claim 4 and as shown by figure 1 of Yamazaki. The examiner interprets the backing layer 5 to be equivalent to applicants claimed "basic material" and magnetic layers 2-4 respectively as applicants claimed "layer like areas." Clearly, the interface between the substrate layer 2 and the

Art Unit: 1773

intermediate layer 3, and intermediate layer 3 and the magnetic layer 4 are parallel to the contours of the backing layer.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikolas J. Uhler whose telephone number is 703-305-0179. The examiner can normally be reached on Mon-Fri 7:30 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau can be reached on 703-308-2367. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-0389.



nju
June 4, 2003



Paul Thibodeau
Supervisory Patent Examiner
Technology Center 1700